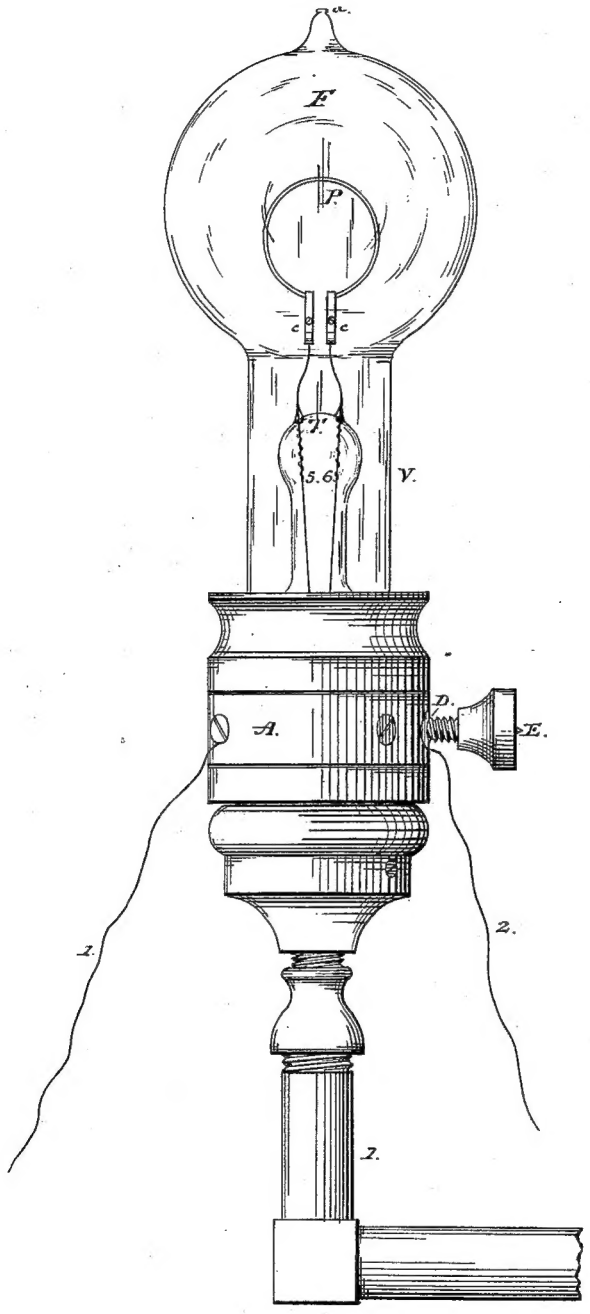
(Model.) 2 Sheets—Sheet 1.

T. A. EDISON.

ELECTRIC LAMP AND HOLDER FOR THE SAME.

No. 265,311. Patented Oct. 3, 1882.

Fig. 1.



Attest
F. W. Howard
James A Payne

Inventor:
T. A. Edison per
Dyer & Wilber
his attys

(Model.) 2 Sheets—Sheet 2.

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Fig. 2.

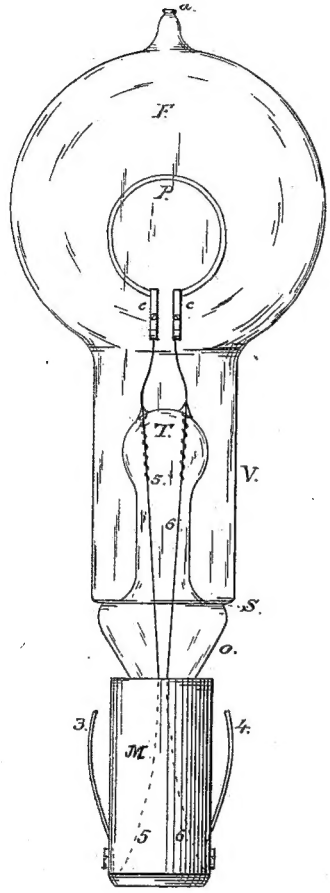


Fig. 3.

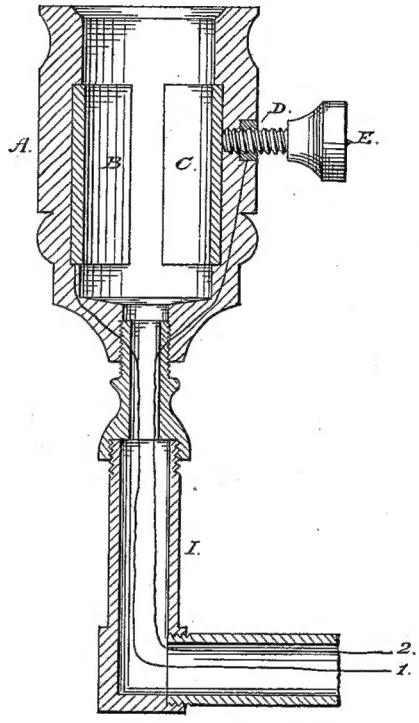
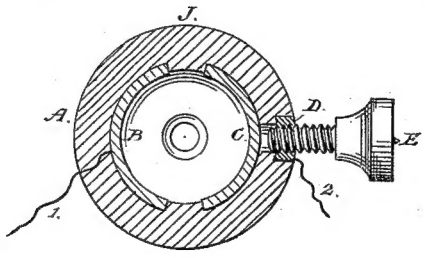


Fig. 4.



Attest:
H. W. Howard
James A. Payne.

Inventor:
T. A. Edison
per Dyer & Wilbert
his attys

UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY, ASSIGNOR TO THE EDISON ELECTRIC LIGHT COMPANY, OF NEW YORK, N. Y.

ELECTRIC LAMP AND HOLDER FOR THE SAME.

SPECIFICATION forming part of Letters Patent No. 265,311, dated October 3, 1882.

Application filed February 5, 1880. Renewed August 14, 1882. (Model.) Patented in England February 10, 1880, No. 578; in Italy April 28, 1880; in Belgium April 30, 1880, No. 51,155; in Victoria June 15, 1880, No. 2,842; in France June 16, 1880, No. 136,088; in India June 23, 1880, No. 415; in Sweden June 25, 1880; in Canada July 19, 1880, No. 11,520; in New South Wales July 26, 1880; in Queensland August 3, 1880; in Austria-Hungary August 13, 1880; in Portuga. September 22, 1880, No. 621; in Norway September 24, 1880; in New Zealand October 18, 1880, No. 484; in Russia December 14, 1881; in Germany December 31, 1881, No. 15,602, and in Spain January 2, 1882.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Menlo Park, New Jersey, have invented a new and useful Electric Lamp and Holder for the Same, (Case No. 201,) of which the following is a specification.

In order to adopt a system of electric lighting for ordinary and domestic uses, it seems essential that a lamp should be devised complete in itself, so that it may be supplied as a separate article ready for attachment to a suitable support, and with conductors so arranged that when the lamp is placed in position the circuit-connections are completed without further adjustment, and the holder or socket for receiving the lamp should be arranged to subserve this purpose, this that there may be no difficulty encountered, no skilled care or attention needed in placing the lamps in position or in replacing one which from breakage or any cause whatever should become disabled.

The object of this invention is to attain this; and to that end it consists in an electric lamp as a separate article adapted to be readily placed upon or within or removed from a suitable holder, and in a socket or holder as a separate article adapted to receive and support upon or within it an electric lamp, and in the combination of these two separate articles and proper contacts for completing the electric circuit, and in other features more particularly hereinafter described and claimed.

Referring to the drawings hereto annexed, and forming part of this specification, Figure 1 is an elevation of my improved lamp and socket mounted on any suitable support. Fig. 2 is a view of the separate lamp. Fig. 3 is a longitudinal section of the socket, and Fig. 4 is a cross-section of Fig. 3 near the circuit-closing screw.

The lamp is composed of the glass globe F, formed with a neck, V, into which is slipped the glass portion O, having at its upper end the bulb T, which supports and into which are securely fastened the conductors 5 6, leading to P, which is some material capable of being rendered incandescent by an electric current. O and V are hermetically sealed by fusion at S, after which the globe F is exhausted of air, when it is sealed by fusion at *a*, thus making the lamp consist of a globe practically of one piece of glass hermetically inclosing in a vacuum a material, P, adapted to be rendered incandescent by an electric current. The extention V of globe F and the part O form a neck suitably elevating and supporting the globe. Thus far this lamp is more fully described in an application for a patent filed by me in the United States Patent Office on December 11, 1879.

Upon the lower end of the part O is secured a cylinder, M, of any suitable insulating material, provided on opposite sides with metallic springs or contact-pieces 3 4. From the clamps *c c*, which hold and support the incandescent arc P, the conductors 5 6 lead to the contact-pieces 3 4, adapted to complete the electrical circuit when the lamp is placed in position in the holder hereinafter to be described. This construction forms a separate electric lamp, which may readily be removed from or placed upon or within a suitable holder, the act of placing the lamps in position completing without adjustment or attention the necessary circuit-connections to the light-giving portion.

A is the socket or holder for receiving the lamp. It is made of suitable insulating material, shaped and ornamented as may be desired, receiving and supporting the neck of the electric lamp, and fashioned at one end so as to be fastened into a gas-fixture or other suitable support. As shown in the annexed drawings, it is a cylinder hollowed out from the top with a screw-threaded aperture in the base, by which it is attached to the bracket or chandelier arm I. Upon the interior are the metallic plates B C, insulated from each other. Upon the exterior, so that a line passing through it will strike one of the inner plates—in this case C—is the metallic nut D, insulated from C, in which works the metallic screw E. A conductor, 1, leads to the plate B, and a conduct-

or, 2, to the nut D. Upon turning the screw E electric connection between the plate C and nut D is either completed or broken, dependent upon the direction of the turning. The conductors 1 2 lead directly or indirectly from the source of electricity, and may be placed inside of gas or other suitable pipes or tubing, as shown in Fig. 3, or, as in Fig. 1, may be brought to the lamps in any convenient manner. From this it may be readily seen that if the lamp, Fig. 2, be placed in the socket H, Fig. 3, one spring, 3, bears against and forms electrical contact with one plate—say B—while the other spring, 4, bears against and forms electrical contact with the other plate, C. If screw E be turned so as to impinge firmly on plate C, a complete circuit is formed *via* wire 1, plate B, spring 3, wire 5, incandescent loop P, wire 6, spring 4, plate C, screw E, nut D, wire 2, the total lighting effect, a dim lighting effect, or no lighting effect being due respectively to a fine contact, a slight contact, or no contact between E and C.

From this description it is evident that the lamp is an article complete in itself, consisting substantially of an inclosing globe entirely of and sealed by glass, an incandescing material, and conductors therefrom to spring-contacts on an insulated base-piece, and without regulating or heat-absorbing devices, but capable of being placed in position for use without any attention or adjustment.

While I have shown contact-springs upon the exterior of the cylinder M on the neck of the lamp, and contact-plates upon the interior of the socket or holder, it is evident that this relation could be reversed—the plates being placed on the neck of the lamps and the springs in the socket—without departing from the spirit of my invention or requiring any further invention. It is also evident that the lamp could be so constructed that its neck would embrace the holder, instead of being placed therein.

What I claim is—

1. A separate electric lamp, consisting essentially of an inclosing globe entirely of glass, an incandescing material secured therein, conductors leading thereto and sealed in the glass where they pass therethrough, and a base of insulating material in which the neck of the globe is secured, said base being provided with metallic contact-plates to which the conductors leading into the globe are secured at their outer ends.

2. A socket for an electric lamp, adapted to be placed upon a gas-pipe or other suitable support, and provided with contact-plates forming the terminals of an electric circuit, and arranged substantially as set forth.

3. A socket for an electric lamp, adapted to be placed upon a gas-pipe or other suitable support, and provided with contact-plates forming the terminals of an electric circuit, and also provided with a circuit-controller inserted in one branch of the circuit for controlling the circuit, substantially as set forth.

4. The combination of a separate electric lamp made and provided with a base, as described, and a socket adapted to be secured upon a gas-pipe or other suitable support, and provided with contact-plates, as set forth, so that the two may be readily attached or detached, substantially as set forth.

5. The combination, with a bracket or chandelier arm or other gas or hollow pipe containing the wires of an electric circuit, of a socket or holder for an electric lamp adapted to be secured therein and to receive and support the lamp, and provided with contact-plates forming the terminals of the wires of the electrical circuit, substantially as set forth.

6. The combination of an electric lamp having an insulated base provided with contact-plates thereon, and a socket or holder for receiving and supporting the lamp, provided with contact-plates forming electrical connection with and completing the circuit through the plates on the base of the lamp, substantially as set forth.

In testimony whereof I have hereunto affixed my signature this 28th day of January, A. D. 1880.

THOS. A. EDISON.

Witnesses:
C. P. MOTT,
SAM. D. MOTT.